

STUDIES OF NEOTROPICAL CADDISFLIES, XXXI: FIVE NEW SPECIES FROM ARGENTINA (TRICHOPTERA)¹

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ABSTRACT: Four new species of Hydroptilidae are described and figured: *Neotrichia salada* (Argentina and Paraguay), *N. palma* (Argentina and Paraguay), *Oxyethira argentinensis* (Argentina), and *O. santiagensis* (Argentina). *Oecetis paranensis* (Argentina, Brazil and Paraguay), family Leptoceridae, is also described and figured. All species are newly discovered to occur in the northern third of the Province of Buenos Aires, Argentina, and some are recorded from as far north as central Brazil.

In December of 1979, my wife and I travelled to the Province of Buenos Aires, Argentina, to gather material for the proposed "Fauna y Flora Acuaticas del Area Platense". Thanks to the extensive help of Drs. R.A. Ringuelet and J.A. Schnack of the Instituto de Limnologia and R.A. Ronderos of the Departamento de Zoologia, Facultad de Ciencias Naturales y Museo, Universidad Nacional de La Plata, we were able to travel extensively throughout this area for a month. Unfortunately the month was unseasonably cold, which, coupled with several severe thunderstorms, reduced the number of nights that good collections were made. Nevertheless, 17 species were taken in the area for the first time, of which, five species are undescribed. To make the names available for the Fauna Platense, they are described here.

Family Hydroptilidae

Neotrichia salada, new species

Figures 5-8

This species is closely related to the recently described *N. tubulifera* Flint (1980), with which it may occur. The clearest difference between the two is in the shape of the clasper. In *salada* the clasper is nearly truncate in both lateral and dorsal aspects and apex dorsally bears a distinct dark point. In *tubulifera* the clasper tapers to an acute angle in both lateral and ventral aspects and there is no dark point. There are other less well marked differences in other parts of the genitalia, most especially the aedeagus.

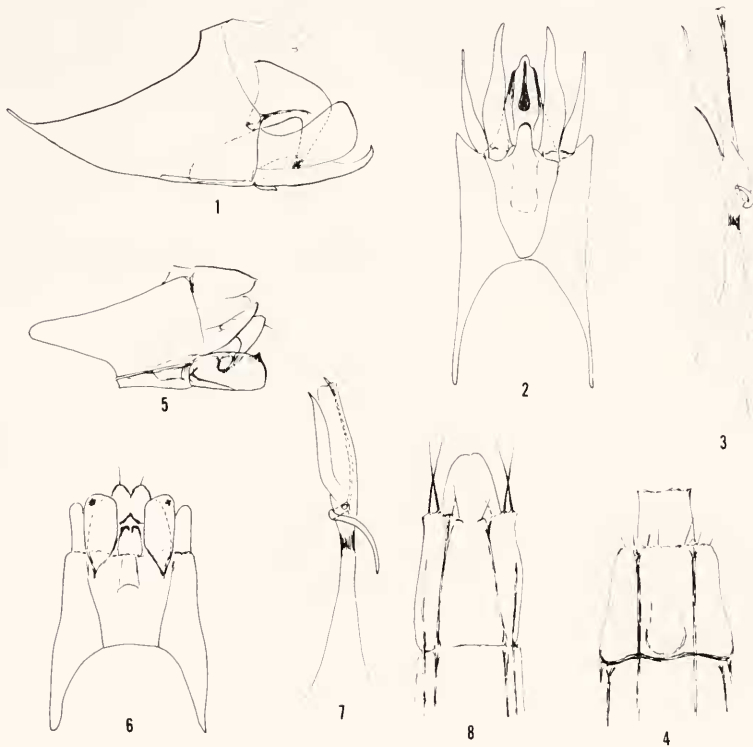
Adult. — Length of forewing, 1.5-2mm. Color grayish brown, legs and body stramineous; forewing with alternating streaks of gray and stramineous hair. Male genitalia: Ninth segment anteriorly with long lateroventral lobes; with a pair of dark, ventral, bracing rods between

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anterior and posterior margins. Bracteole membranous, indistinct; elongate. Subgenital plate with an elongate apex directed ventrad between claspers; apex bilobed in ventral aspect with 2 short setae. Clasper elongate, more or less rectangular in outline; with a darkened apicodorsal point. Aedeagus with a conical base, with a spiral process at midlength; apical half with a mesal ejaculatory duct and a lateral, swordlike process. Female genitalia: Eighth sternum elongate, membranous, without surface features, posterior margin with setae, 2 lateralmost pairs very large, darkened and conspicuous.

Material. — Holotype, male: Argentina, Pcia. Buenos Aires, Río Salado, Rt. 3, south San Miguel del Monte, 7 Dec. 1979, C.M. & O.S. Flint, Jr. USNM Type 100227. Paratypes: same data, 22 ♂, 64 ♀; Arroyo Pescado, Rt. 11, 15 km. east La Plata, 20 Dec. 1979, C.M. & O.S. Flint, Jr., 1 ♂, 4 ♀; Río Parana de las Palmas, Lima, 16 Dec. 1979, C.M. & O.S. Flint, Jr., 1 ♂. Pcia. Entre Ríos, Río Parana Ibicuy, Puerto Ibicuy, 10 Dec. 1979, C.M. & O.S. Flint, Jr. 1 ♂. Pcia. Chaco, Riacho Barranqueras, Puerto Vilelas, 5 Dec. 1973, O.S. Flint, Jr., 4 ♂, 30 ♀. Paraguay, Asuncion, 30 Dec. 1972, L. Lautenschlager, 3♂.



Figs. 1-8. *Neotrichia palma*, n.sp.: 1, male genitalia, lateral; 2, male genitalia, ventral; 3, aedeagus, lateral; 4, female genitalia, ventral. *N. salada*, n.sp.: 5, male genitalia, lateral; 6, male genitalia, ventral; 7, aedeagus, lateral; 8, female genitalia, ventral.

Neotrichia palma, new species

Figures 1-4

This, another species of the *noteuna* group, is clearly related to *salada* n. sp. It is readily differentiated from this species by longer claspers whose tips are very slender. In addition there are differences in the shape of the subgenital plate and bracteole.

Adult. — Length of forewing, 2mm. Material completely decolorized, in alcohol. Male genitalia: Ninth segment with anterior margin produced into long, lateroventral lobes ending in a pointed process; with a pair of dark, ventral, bracing rods between anterior and posterior margins, posterior margin produced into a small lobe between clasper bases. Bracteole elongate, enlarged apically. Subgenital plate with an elongate apex directed ventrad between claspers; apex slightly produced in ventral aspect. Clasper elongate, apical half slender and elongate in both lateral and ventral aspects. Aedeagus with a conical base, narrowed before midlength; with a spiral process at midlength; apical half with a darkened linear structure (the ejaculatory duct?) and a lateral, swordlike process. Female genitalia: Eighth sternum about as long as broad, lightly sclerotized with a distinct basomesal bulge; posterior margin with a row of indistinct pale setae.

Material. — Holotype, male: Argentina, Pcia. Buenos Aires, Río Parana de las Palmas, 18 Dec. 1979, C.M. & O.S. Flint, Jr. USNM Type 100228. Paratypes: same data, 2 ♀. Paraguay, Asuncion, 30 Dec 1972, L. Lautenschlager, 3 ♂, 20 ♀.

Oxyethira argentinensis, new species

Figures 13-14

This is another member of the primarily Neotropical *zeronia* group, perhaps most similar to *O. macrosterna* Flint (1974). It may be recognized by the small dorsolateral point on the eighth segment, the shapes of the subgenital plate and claspers, and especially by the distinctive subapical twisted plates of the aedeagus.

Adult. — Length of the forewing, 2mm. Color pale brown; forewing with a few darker brown maculae. Seventh sternum with a distinct posteromesal point. Male genitalia: Eighth segment deeply cleft both midventrally and midorsally; dorsolateral margin bearing a small point, apex slightly produced. Ninth sternum produced anteromesally, without processes. Subgenital plate elongate, slightly curved in lateral aspect; in ventral aspect sclerotized laterally, apex acute; with a pair of small membranous processes laterally. Claspers sharply pointed in lateral aspect; in ventral aspect emarginate mesally. Aedeagus tubular, slightly inflated basally; apex divided into twisted plates, tip a membranous lobe, with a pointed, spinelike dorsal sclerite.

Material. — Argentina, Pcia. Buenos Aires, Arroyo Pescado, Rt. 11, 15km. east La Plata, 20 Dec. 1979, C.M. & O.S. Flint, Jr. USNM Type 100229. Paratypes: Same data, 28 ♂. Pcia. Río Negro, Lago Pellegrini, northeast Cipolletti, 17 Feb. 1978, C.M. & O.S. Flint, Jr., 1 ♂.

Oxyethira santiagensis, new species

Figures 11-12

This is another species of the *zeronia* group (Marshall, 1979), related to *O. lagunita* Flint (1980). It is easily recognized by the strong, rodlike processes from the ventral margin of the ninth sternum, as well as major differences in all other parts of the genitalia, especially the aedeagus with its apical filament.

Adult. — Length of forewing, 2mm. Color brown; forewing irregularly mottled with lighter and darker brown maculae. Seventh sternum with a small apicomeral point hidden in a brush of setae. Male genitalia: Eighth segment forming a tube enclosing genital capsule, venter deeply excised posteromesally, posterior margin entire dorsally. Ninth sternum prolonged anteroventrally, distinctly asymmetrical; posteroventral margins bearing a pair of stout, long and slightly curved processes. Subgenital plate and claspers in lateral aspect basically C-shaped, with dorsal and ventral arms close together; in ventral aspect the subgenital plate has a V-shaped posteromesal excision, and the claspers have their posterior margin almost truncate. Aedeagus tubular, enlarged basally; apex asymmetrically produced to one side, bearing a membranous lobe and slender, twisted filament.

Material. — Holotype, male: Argentina, Pcia. Buenos Aires, Rio Santiago, Palo Blanco, Berisso, 23 Nov. 1979, C.M. & O.S. Flint, Jr. USNM Type 100230.

Family Leptoceridae

Oecetis paranensis, new species

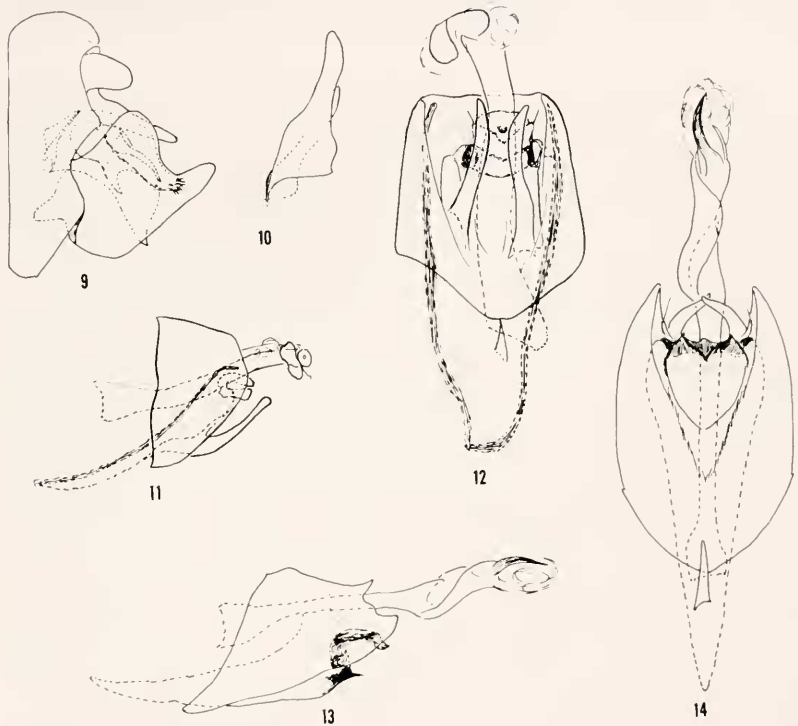
Figures 9-10

This species would appear to be related to *O. inflata* Flint (1974), known from Surinam. It is however, easily recognized by the form of the male genitalia, especially the claspers which bear an apicoventral process and the aedeagus with its well developed internal spine.

Adult. — Length of forewing, 6-9mm. Color brown; forewing covered with golden-brown hairs, veins with white hair interrupted by fuscous spots at furcations, margin with fuscous spots at ends of veins with white hair between spots. Forewing with R_{2+3} forked at \underline{g} ; hindwing with R_{2+3} forked well before margin, M forked basad of $\underline{j-m}$, Cu_1 deeply forked. Male genitalia: Ninth segment annular. Tenth tergum membranous, deeply divided mesally, lateral lobes divergent and constricted apicad. Cercus an elongate lobe. Clasper with a broad rounded dorsal lobe and a narrow, terete apicoventral lobe. Aedeagus terete, with apicoventral margin produced; internally with a strong dark spine, a U-shaped sclerite, and a small membranous lobe capped by a cluster of spicules.

Material. — Holotype, male: Argentina, Pcia. Chaco, Riacho Barranqueras, Puerto Vilelas, 5 Dec. 1973, O.S. Flint, Jr. USNM Type 100231. Paratypes: Same data, 2 σ , 2 φ ; Pcia. Misiones, Arroyo Coati, 15 km. east of San Jose, 18-19 Nov. 1973, O.S. Flint, Jr., 8 σ , 10 φ ; Arroyo Saura, 9 km. north of L.N. Alem, 20 Nov. 1973, O.S. Flint, Jr., 1 σ , 1 φ ; Arroyo Liso, 8 km. west of General Guemes, 19 Nov. 1973, O.S. Flint, Jr., 1 φ . Pcia. Buenos Aires, Rio Parana de las Palmas, Lima, 16 Dec 1979, C.M. & O.S. Flint, Jr., 1 σ . Pcia. Entre Rios,

Río Parana Ibicuy, Puerto Ibicuy, 10 Dec. 1979, C.M. & O.S. Flint, Jr., 2 ♂, Paraguay, 3.9 km. south of Villarrica, 2 Dec. 1973, O.S. Flint, Jr., 1 ♂, 8 ♀; Arroyo Tapiracuay, San Estanislao, 27 Nov. 1973, O.S. Flint, Jr., 55 ♂, 51 ♀; Río Aquidaban, Cerro Cora, 29 Nov. 1973, O.S. Flint, Jr., 2 ♂, 8 ♀. Brazil, Edo. Amazonas, BR319, 102 km. southwest of Manaus, 30 July 1979, J. Arias, et. al., 1 ♂.



Figs 9-14. *Oecetis paranensis*, n.sp.: 9, male genitalia, lateral; 10, clasper, ventral. *Oxyethira santiagensis*, n.sp.: 11, male genitalia, lateral; 12, male genitalia, ventral. *O. argentinensis*, n.sp.: 13, male genitalia, lateral; 14, male genitalia, ventral.

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